

ORAL HISTORY INTERVIEWS

LESTER SNOW



STATUS OF INTERVIEWS:
OPEN FOR RESEARCH



Interviews Conducted and Edited by:
Brit Allan Storey
Senior Historian
Bureau of Reclamation



Interviews conducted–2000
Interview edited and published–2019

Oral History Program
Bureau of Reclamation
Denver, Colorado

SUGGESTED CITATION:

SNOW, LESTER. ORAL HISTORY INTERVIEW.
Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, Sacramento, California in 2000. Edited by Brit Allan Storey. Repository for the record copy of the interview transcript is the National Archives and Records Administration in College Park, Maryland.

Record copies of this transcript are printed on 20 lb., 100% cotton, archival quality paper. All other copies are printed on normal duplicating paper.

Table of Contents

Table of Contents..... i

Statement of Donation..... iii

Editorial Convention..... v

Introduction..... vii

Oral History Interview..... 1

 Early Life..... 1

 Central Arizona Association of Governments..... 2

 Tucson Active Management Area Manager..... 4

 San Diego Water Authority..... 5

 CALFED..... 7

 Bureau of Reclamation..... 8

 Interest in Earth Sciences..... 10

 Family Farm..... 13

 Water Quality Program Manager in Arizona..... 14

 Water Issues..... 16

 Involvement in Central Arizona Project Planning
 19

 Active Management Areas..... 21

 Metering Issues..... 22

 Water Conservation Efforts..... 26

 San Diego Water Issues..... 28

 San Diego's Relationship with MWD..... 29

 San Diego Project..... 31

 Wholesaling Water in Southern California..... 34

Water Authority Projects..... 35
Water Authority's Political Clout..... 43
Issues with Retail Agencies..... 45
Moving to CALFED. 48
Developing CALFED Strategies. 50
CALFED and Central Valley Project Improvement
Act. 52
M-P Regional Response to CVPIA. 54
Newlands Project..... 56
Klamath Project..... 57
Matilija Dam. 60
Culture within Different Bureaucracies..... 62

Statement of Donation

STATEMENT OF DONATION OF ORAL HISTORY INTERVIEW OF LESTER A. SNOW

1. In accordance with the provisions of Chapter 21 of Title 44, United States Code, and subject to the terms, conditions, and restrictions set forth in this instrument, I, Lester A. Snow, (hereinafter referred to as "the Donor"), of Sacramento, California, do hereby give, donate, and convey to the Bureau of Reclamation and the National Archives and Records Administration (hereinafter referred to as "the National Archives"), acting for and on behalf of the United States of America, all of my rights and title to, and interest in the information and responses (hereinafter referred to as "the Donated Materials") provided during the interview conducted on September 20, 2006, at the Bureau of Reclamation's regional office in Sacramento, and prepared for deposit with the National Archives and Records Administration in the following format: cassette tapes and transcripts. This donation includes, but is not limited to, all copyright interests I now possess in the Donated Materials.
2.
 - a. It is the intention of the Archivist to make Donated Materials available for display and research as soon as possible, and the Donor places no restrictions upon their use.
 - b. The Archivist may, subject only to restrictions placed upon him by law or regulation, provide for the preservation, arrangement, repair, substitution, duplication, reproduction, description, exhibition, display, and servicing of the Donated Materials as may be useful and appropriate.
3. Copies of the Donated Materials may be deposited in or loaned to institutions other than the National Archives, including the Bureau of Reclamation. Copies of Donated Materials may also be provided to researchers. The Bureau of Reclamation may retain copies of tapes, transcripts, and other materials.
4. The Archivist may dispose of Donated Materials at any time after this power is to the National Archives.

Date: 9/20/06



Lester A. Snow

INTERVIEWER: _____

Herb Allan Stoney

Having determined that the materials donated above by Lester A. Stoney are appropriate for preservation as evidence of the United States Government's organization, functions, policies, decisions, procedures, and transactions, and considering it to be in the public interest to accept these materials for deposit with the National Archives and Records Administration, I accept this gift on behalf of the United States of America, subject to the terms, conditions, and restrictions set forth in the above instrument.

Date _____

Signature _____
Archivist of the United States

Editorial Convention

A note on editorial conventions. In the text of these interviews, information in parentheses, (), is actually on the tape. Information in brackets, [], has been added to the tape either by the editor to clarify meaning or at the request of the interviewee in order to correct, enlarge, or clarify the interview as it was originally spoken. Words have sometimes been struck out by editor or interviewee in order to clarify meaning or eliminate repetition. In the case of strikeouts, that material has been printed at 50% density to aid in reading the interviews but assuring that the struckout material is readable.

The transcriber and editor also have removed some extraneous words such as false starts and repetitions without indicating their removal. The meaning of the interview has not been changed by this editing.

While we attempt to conform to most standard academic rules of usage (see *The Chicago Manual of Style*), we do not conform to those standards in this interview for individual's titles which then would only be capitalized in the text when they are specifically used as a title connected to a name, e.g., "Secretary of the Interior Gale Norton" as opposed to "Gale Norton, the secretary of the interior;" or "Commissioner John Keys" as opposed to "the commissioner, who was John Keys at the time." The convention in the federal government is to capitalize titles always. Likewise formal titles of acts and offices are

capitalized but abbreviated usages are not, e.g., Division of Planning as opposed to "planning;" the Reclamation Projects Authorization and Adjustment Act of 1992, as opposed to "the 1992 act."

The convention with acronyms is that if they are pronounced as a word then they are treated as if they are a word. If they are spelled out by the speaker then they have a hyphen between each letter. An example is the Agency for International Development's acronym: said as a word, it appears as AID but spelled out it appears as A-I-D; another example is the acronym for State Historic Preservation Officer: SHPO when said as a word, but S-H-P-O when spelled out.

Introduction

In 1988, the Bureau of Reclamation created a History Program. While headquartered in Denver, the History Program was developed as a bureau-wide program.

One component of Reclamation's History Program is its oral history activity. The primary objectives of Reclamation's oral history projects are: preservation of historical data not normally available through Reclamation records (supplementing already available data on the whole range of Reclamation's history); making the preserved data available to researchers inside and outside Reclamation.

Questions, comments, and suggestions may be addressed:

Andrew H. Gahan
Historian
Environmental Compliance Division (84-53000)
Policy and Administration
Bureau of Reclamation
P. O. Box 25007
Denver, Colorado 80225-0007

For additional information about Reclamation's history program see:
www.usbr.gov/history

(Intentionally Blank)

**Oral History Interview
Lester Snow**

Storey: This is Brit Allan Storey, Senior Historian of the Bureau of Reclamation, interviewing Lester A. Snow, Regional Director of the Mid-Pacific Region of the Bureau of Reclamation, in his offices in Sacramento, California, on September 20, 2000. This is tape one.

I'd like to ask you where you were born and raised and educated and how you ended up at the Bureau of Reclamation.

Early Life

Snow: I was born and raised on a small, very small, dairy farm in Pennsylvania. I lived there until I went to college. Quite a small farm. I think we probably had forty head of cattle or something like that. So I grew up working on a farm and putting in hay in the summertime and going to school and that sort of thing. Went to Penn State when I graduated from high school and majored in earth sciences, which was a combination of a lot of the 'ologies and 'ographies, oceanography and geology and meteorology, a lot of different things like that. When I graduated from Penn State, I wasn't real clear what I wanted to do, although I had

become quite interested in resource issues. Probably for most of the time I was at Penn State interested in air resource issues.

Right before I graduated in '73, Congress passed the Clean Water Act in 1972, which drew a lot of interest to national water issues. That caught my attention and [I] started getting more interested in water issues and ended up going to graduate school at the University of Arizona in Tucson in a . . . At least at the time, a unique program that they had, which was Water Resource Administration, an interdisciplinary program that kind of mixed political science and engineering and economics together. Went there. Loved that program. It was just an excellent program.

Central Arizona Association of Governments

When I graduated in '76, I got a job with the Central Arizona Association of Governments. I don't know if you're familiar with Council of Governments, but kind of a regional planning organization that does planning work for multi-county areas. This happened to be two rural counties in the heart of Arizona, and I was their first water quality program manager to develop Section 8 area-wide water quality management plans under the Clean Water Act. So in that

Bureau of Reclamation History Program

position I worked with agriculture, copper mines, cities, helping them identify water quality problems and come up with strategies to solve those problems. Got a lot of grants for small communities to improve their wastewater treatment plants and that sort of thing.

[Tape Interruption]

Storey: The water quality program.

Snow: Oh, right. For CAG. Anyway, in that program I had an opportunity to work a lot with local interests, with cattle ranchers and farmers and managers of copper mines and how you try to solve problems. It was a very collaborative effort, since we didn't have any authority whatsoever to make anybody do anything. Had a lot of committee meetings late at night with farmers on how to control runoff from their fields to keep them from polluting streams.

While I was there, I got promoted to have other responsibilities with economic development and housing planning and that sort of thing. I also got involved in the planning for

something called the Central Arizona Project¹ and met a lot of bureau people at that time. That would have been late seventies. That was a project that was going to bring water to Pinal County, one of the counties that I dealt with. So in that capacity got involved with a lot of statewide water issues.

Tucson Active Management Area Manager

Governor [Bruce] Babbitt² succeeded in getting the Arizona Groundwater Management Act passed in the late seventies and created active management areas for the Arizona Department of Water Resources. So, I think, in 1981, I became the Deputy Director of the Tucson Active Management Area for the

-
1. The Central Arizona Project was authorized by the Colorado River Basin Project Act of 1968. The project is a multipurpose water resource development and management project that delivers Colorado River water, either directly or by exchange, into central and southern Arizona. The project was designed to provide water to nearly one million acres of Indian and non-Indian irrigated agricultural land areas in Maricopa, Pinal, and Pima Counties, as well as municipal water for several Arizona communities, including the metropolitan areas of Phoenix and Tucson. For more information, see Jennifer E. Zuniga, "The Central Arizona Project," Denver: Bureau of Reclamation History Program, 2000, www.usbr.gov/projects/pdf.php?id=94.
 2. Bruce Edward Babbitt served the state of Arizona as governor between 1978 to 1987, and was the Secretary of the Interior under the Clinton Administration from 1993 to 2001.

Bureau of Reclamation History Program

Department of Water Resources and then became the director. In that position worked to implement the Arizona Groundwater Management Act. That involved, again, working with particularly farmers but also the cities on quantifying how much water they used, getting them to meter their wells, developing management plans to bring the groundwater basin into safe yield. And also working on the completion of C-A-P, the end part of Central Arizona Project into the Tucson area.

So that was interesting, again, both from the statewide perspective as well as the local perspective, of getting golf courses to do better water management and particularly the metering program. People had gotten used to pumping water without ever metering it. Arizona Groundwater Management Act required people to meter their water supply.

San Diego Water Authority

I think it was probably sometime in '87 I got contacted by a headhunter out of California indicating that San Diego County Water Authority, which I had never heard of, was looking for a general manager. And specifically someone who was familiar with environmental issues and could work with diverse groups,

which was what I had done most of my life to that point. So I went to work for the San Diego County Water Authority in 1988 and was the general manager of the water authority, which is the wholesale water agency bringing water from Northern California and the Colorado River through Metropolitan Water District to twenty-eight retail agencies that we supplied. So we brought in about 95 percent of the water used in San Diego County, rapidly growing area. It was way behind the curve on its facilities, so had to initiate about a three-quarters of a billion-dollar capital improvement program to build pipelines and investigate storage.

While I was in San Diego dealing with our water supply, since most of it was imported, again became very involved in state-wide water issues. One of the bigger problems we had was with the state water system and the problems in the Sacramento-San Joaquin Delta and how problems, endangered species problems in the delta, was affecting the reliability of San Diego's water supply. Spent a great deal of time working in stakeholder groups and consensus process to try to come up with different strategies to fix the delta problems.

I think in the early nineties we called it the three-way process: ag, urban, and environmental

interests working together. The drought deepened in the early nineties. That resulted in more species being listed as well as people simply being short water supply. That led to something called the Bay-Delta Accord, which was the stakeholders, state, and federal government coming together and agreeing on a new operating regime for the delta that was better for the fish.³

CALFED

At that point, Secretary Babbitt had become engaged in the process, largely through Assistant Secretary of Interior Betsy Rieke. That gave birth to something called CALFED. The accord was intended to be a temporary fix

3. Referring to the delta of the San Joaquin and Sacramento rivers—often referred to as the Bay-Delta. This is located on the northeast quadrant of San Francisco Bay (San Pablo Bay). The water from the Delta exits to San Pablo Bay through the Carquinez Straits. "The Bay Delta Conservation Plan (BDCP) is a part of California's overall water management portfolio. It is being developed as a 50-year habitat conservation plan with the goals of restoring the Sacramento-San Joaquin Delta ecosystem and securing California water supplies. The BDCP would secure California's water supply by building new water delivery infrastructure and operating the system to improve the ecological health of the Delta. The BDCP also would restore or protect approximately 150,000 acres of habitat to address the Delta's environmental challenges." See baydeltaconservationplan.com (Accessed June 2014).

of the delta problems, and CALFED was created to try to find a long-term solution.⁴ Because of my involvement in statewide issues, I knew the governor quite well, Governor [Pete] Wilson. I knew, of course, Secretary Babbitt and Betsy Rieke. I was kind of a consensus person to come in and run the CALFED effort. So I started doing that in 1995 and got the CALFED process up and running. Did that for five years. Got it to a point of kind of a draft NEPA document, a draft strategy.

Bureau of Reclamation

4. "The CALFED Bay-Delta Program is a unique collaboration among 25 state and federal agencies that came together with a mission: to improve California's water supply and the ecological health of the San Francisco Bay/Sacramento-San Joaquin River Delta. It was the Delta's importance to the economic stability of California and the nation that led to the drafting in 2000 of a 30-year plan for its management and restoration. Implementation of the plan was ultimately pledged by 25 state and federal agencies with expertise to manage the complex program. This plan, set forth in a programmatic Record of Decision, laid out a science-based planning process through which the participating agencies were able to make and implement better, more informed decisions and actions on future projects and programs. Two years later, the California Bay-Delta Authority was created to oversee the program's implementation and Congress adopted the plan in 2004." See "CALFED Bay-Delta Program Archived Website," <http://www.calwater.ca.gov/calfed/about/> (Accessed 8/2016).

Bureau of Reclamation History Program

The position here at the bureau came open and, of course, the Bureau of Reclamation was one of the cornerstone agencies of CALFED. And after discussions with the secretary and others about where I could maybe best help out, by staying at CALFED or moving here, basically I decided I wanted to move to the bureau to get back into implementation and not just planning. So in 1999 was hired to be the regional director here.

My reason for doing that and expectation is to get into implementing new programs and new approaches to try to start implementing the solution to the Bay-Delta problem. And also just an assessment that the bureau was kind of uniquely positioned, particularly here in California, to find new solutions, to look at ways of doing conjunctive management that makes it better for fish as well as our water users. So that's what I've been engaged in for almost a year now trying to move into implementation and deal with contracts and a lot of existing disputes that need to be resolved.

Storey: Let's go back a little ways.

Snow: Okay.

Storey: Do you mind telling me when you were born?

Snow: No. August 23, 1951.

Storey: What part of Pennsylvania?

Snow: Northwestern part. North of Pittsburgh, south of Erie.

Storey: How did you get interested in earth sciences?

Interest in Earth Sciences

Snow: I don't think I have a good answer to that. I think growing up in rural Pennsylvania, I mean, I had a certain fondness for the natural environment, enjoyed hunting and fishing and that sort of thing. And I think I went to Penn State not knowing exactly what I wanted to get involved with. I looked around. I did not necessarily want to specialize, and a lot of the things I was interested in I could sample in that particular degree program, meaning take a little meteorology, take some oceanography, get into geology. So it was just a convenient major for me.

Probably the thing I could have done with just that degree would have been more on the meteorology side of things. So it was a good sampling program. It didn't necessarily prepare me for a specific profession, but it worked out

well as a foundation to move onto water resource issues.

Storey: Why were you sampling in that particular grouping of specialties? Did you want to be a weatherman on T-V?

Snow: No. No. I think it's just more a fascination with the earth and our natural resources. It is what sustains us. Was not so interested in either the kind of things like psychology or anything like that. Just the earth sciences. There was just something about that that kind of struck home, and I actually think that was a good choice, in retrospect.

Storey: How did you evolve into this program at the University of Arizona?

Snow: When I decided I was interested in water more than air at that time, I started looking around all across the West at—I'm not sure what my thoughts were at the time, but I was really looking for a specialized program. I did not want to be an engineer, and I did not want to be a resource economist. I kind of wanted to have more hands-on, what's the real world really like, and how do you get decision made. I don't remember specifically. It seems like there was a program at, maybe, Colorado State. There was

one at the University of Arizona. There was something up in Oregon, just kind of blending of things.

University of Arizona, I liked the program and in the final analysis they offered me a scholarship or a foundation appointment, which I took, which was very helpful. It's a program that they've changed since, which I think is terrible. As I look to hire people to find somebody with a mix of some economics, some engineering, some poly-sci, it's a very attractive mix in this day and age. That's how you get decisions made. It was a good fit. I got to know a lot about what was going on in the West in that program from different perspectives, from an engineering perspective as well as political science. So, anyway, it worked out well for me.

Storey: Now, when did you graduate from Penn State?

Snow: '73.

Storey: And then from Tucson?

Snow: '76.

Storey: I meant to ask you, on your dairy farm was there any irrigation?

Family Farm

Snow: No. No. The rain provided our irrigation.

Storey: In good years, anyway.

Snow: Yes. I actually don't remember. I know there were some dry years, but I don't remember any that put us in bad shape. We were always able to get some level of cropping done. Never irrigated.

Storey: What? Corn?

Snow: Corn. Oats. Alfalfa. Clover. That kind of thing.

Storey: When you say a small dairy farm, what does that mean to you? How do you define a small dairy farm?

Snow: By today's standards it would be a dairy farm that couldn't remotely be in business. So it was maybe at any one time milking eighteen to twenty-four cows and farming—let's see, we had a total of a hundred acres. A lot of that was in woods. So maybe actually farming sixty acres, sixty-five acres, something like that.

Storey: Now, when you went off to the Central Arizona Association of Governments, what were their concerns about water quality that caused them to hire you as a water quality program manager?

Water Quality Program Manager in Arizona

Snow: That was one of the dilemmas. I'm not sure that they had any concerns for water quality, but what had happened was that, remember I mentioned earlier the Clean Water Act passed in 1972 and it had a provision in it, Section 208, that required all across the country that E-P-A [Environmental Protection Agency] prepare what were called area-wide water quality management plans. The intent of these plans—and I'm maybe summarizing too much—but it was to try to get a handle on nonpoint-source pollution in addition to dealing with point-source.

E-P-A had done nothing to implement that provision. They were sued and lost in court, and as a result of the settlement they basically made grant monies available to different organizations all across the country. And they really chose the Council of Governments form as planning organizations to deal with that. So E-P-A had made money available to all of these Councils of Government basically. So they had

to prepare one, but they got all the money from E-P-A to prepare a plan.

The reason I make that distinction is I think if you would have polled the locals and the governing board of the Council of Governments that I went to work for, they probably would have felt they don't really have any water quality problems. But they needed to do this and they'd been given the money to do it, and so they were going to prepare a plan. That was a large part of the challenge was actually convincing these people that, in fact, there are problems out there.

The good thing at that time was there was a fair amount of grant money around and so the extent to which you could identify a city with a wastewater treatment problem, for example, you had a pretty good chance of getting them significant grant money from, at that time, both the federal government and state government. So there's in Arizona a number of treatment plants that had their origin back in the seventies with programs like that.

There's a lot of work with agriculture in terms of dealing with nonpoint-source pollution. We worked a lot with what was then the Soil Conservation Service on doing more education

programs and tail water control and pump-back systems and that type of thing. So it kind of got me into regional issues and the local politics of water issues, and then as I mentioned earlier I eventually got involved other broader regional planning issues.

Storey: You mention tail water issues and pump-back, I think you said. Could you tell me more about those?

Water Issues

Snow: As I remember the issue in Arizona, it's just that different farmers, given their locations, would run tail water, and some of them would run tail water to their neighbor and that was okay, because the neighbor then would use the tail water for irrigation. But a number of incidents where they would run tail water into a creek or a drainage and it would end up in a stream and it often carried nutrients with it or pesticides.

One of the things that was particularly useful in that area and was being pushed a bit by the Soil Conservation Service was pump-back systems where the tail water was captured at the low end of the field, a very small retention basin, and then pumped back up to the head of the field to reapply, both for water conservation

but also cost control in maximizing the nutrients on the field. So it was just one of the techniques that was used or promoted at that time to deal not only with efficiency, water use efficiency, but also pollution control in terms of keeping it on the field and out of the stream.

Storey: What other kinds of issues? Wastewater, I presume, is because its carrying nutrients into the system?

Snow: Right. Nutrients and pathogens, bacteria, virus.

Storey: Let's take them separately. I think I understand why you don't want pathogens in the system. Why don't you want nutrients in the system?

Snow: Nutrients from wastewater plants is a lot of nitrogen, potassium, other things like that that promote algal growth. Nutrients in the water is generally a bad thing, because then with nutrients things will grow in the water supply. Or nitrogen, I think it's nitrogen, is associated with blue baby syndrome, if you get too high a nitrogen level in the water supply. So nutrients aren't good.

Another issue, let me kind of back up with wastewater. You're making me remember, all these things I haven't worked with in twenty

years. Another issue that's related to the nutrients is biological oxygen demand. All these things in the water as they react tend to deplete the oxygen in the water and, therefore, kill the other critters in the water supply. Then, of course, e-coli, other things like that. There was a lot of primary sewage discharge going on in rural Arizona. So getting it at least upgraded to secondary or advanced secondary was basically what the objective was.

With copper mines the problems were heavy metal runoff from copper mining activities that had, in fact, wiped out major stream and creek segments. And the other issue was grazing, the effect of grazing. It was largely National Forest land and concern of overgrazing and increasing runoff, which is still an issue in a lot of the West. We tried to come up with grazing guidelines and interface between the Forest Service and the cattle community. I don't know how some of those programs have turned out since, what's happened to them over twenty years. But we were trying to find cooperative efforts at solving some of these problems.

Storey: While you were there, did you see any improvements in the water quality?

Snow: Oh, yes, particularly related to wastewater discharge. We got quite a few projects going with E-P-A grants to improve the treatment capability of the different cities.

Storey: Now, you mentioned also that you were involved in C-A-P planning.

Involvement in Central Arizona Project Planning

Snow: Yes. The bureau, at that time, during their planning on C-A-P had a public participation effort. And I was involved in a couple of different committees as one of the locals to provide advice or, I think more properly, to be a sounding board, as the bureau talked about what their next steps were going to be and what the impacts were going to be as they constructed the pipelines and that sort of thing.

Storey: Do you remember how you reacted to those planning efforts on Reclamation's part?

Snow: You know, I really don't. I remember meeting some very talented people that I still know today. Steve Magnussen⁵ was one of those

5. Stephen Magnussen, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews
(continued...)

folks. A gentleman by the name of Herb Dishlip [phonetic]. I don't know if you know him.

Storey: No, I don't.

Snow: He was on the bureau team working on C-A-P, and he's the Deputy Director of the Arizona Department of Water Resources now. But I remember more the people than the character of the meetings.

Storey: Were people in Arizona excited about C-A-P coming?

Snow: Yes. That's how I would remember it. I mean, there certainly was opposition. The no-growth advocates saw it as a major problem, bringing water in to promote urban sprawl in Tucson and Phoenix. But, by and large, I think the agricultural community and a lot of the others saw it as a good thing, a necessary project. They fought for so long to get C-A-P and it was

5. (...continued)
conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, Washington D.C., in 1999, edited by Brit Allan Storey, further edited and desktop published by Andrew H. Gahan, 2017, www.usbr.gov/history/oralhist.html.

slowly, at that time slowly, working its way across the desert and into the community.

Storey: How did your transition from the Central Arizona Association of Governments—let's see if I got it right—to the Tucson Active Area Management?

Active Management Areas

Snow: Active Management Area.

Storey: Active Management Area. How did that take place? Do you remember? Do you recall?

Snow: Well, basically, I'd gotten to know a lot of people when I worked for the Central Arizona Association of Governments, and a lot of particularly the farmers that I had worked with were also involved in the Tucson A-M-A. So actually one day I simply got a call from the new director of the Tucson A-M-A asking me if I was interested. So it was kind of a word-of-mouth contact for that position, and the transition was simple because I knew so many folks and had been working to understand the Arizona Groundwater Management Act in my previous position. So I just kind of slipped right into implementation of that.

- Storey: Now, looking at the title, I would jump to the conclusion that the only thing you dealt with was groundwater. Is that right? Or is that an incorrect conclusion?
- Snow: It's close enough to not be unfair or incorrect, but any time you deal with groundwater, you've got to be looking at surface water, and in that case we were looking at a new supply, C-A-P, coming in. We were looking at enhancing recharge of existing surface supplies. But the focus and the purpose of creating the A-M-A—there were four A-M-As created in the state—was to implement the Arizona Groundwater Management Act. So most of our effort was spent doing that on a range of things from kind of regulatory, and that was making sure everybody complied with the measure requirements of the act, to more classic resource planning, how do you achieve safe yield in the groundwater basin, how do you increase recharge and at least stabilize, if not, in fact, reduce withdrawals. So it's kind of a mixed bag, mostly oriented around groundwater management but a few other kinds of issues.
- Storey: And dealing with metering must have been quite an issue.

Metering Issues

Snow: Yes.

Storey: Were there a lot of wells?

Snow: That was quite a hoot, that was. [Laughter]

END SIDE 1, TAPE 1. SEPTEMBER 2, 2000.

BEGIN SIDE 2, TAPE 1. SEPTEMBER 2, 2000.

Storey: There were a lot of wells?

Snow: Yes. There are many wells in Pima County and surrounding areas. But more importantly many people that thought those were personal property and that their ability to withdraw water was a god-given right and nobody else needed to know about it. So it was a real challenge working through that program and avoiding conflict. It really involved working with organizations first like irrigation districts or associations of different natures to kind of explain to them why it needed to be done and what the requirements were, hiring people that were good at the tailgate discussions with people out at the pump head, talking with folks.

On balance, I think the program went fairly well. It was not a metering-only requirement. It was measuring, meaning that they could use power records as a means of showing how much

water they pumped, if it was a dedicated meter. So there was flexibility on how to comply with it. We provided a lot of assistance, and I think the program went fairly well. But difficult. Difficult. People that had had a well for fifty years, now they had to meter it. Why is that? It's an awful lot of explaining that we did to get that done.

Storey: Is the primary objective to stabilize the groundwater or to recharge the groundwater or to control the rate at which its diminished or how does that work under this Arizona law?

Snow: The simplest way to put the objective for the Tucson Active Management Area was safe yield and to achieve safe yield by a specific date. I think it was like 2020. So to put in play programs on both sides of the equation, conservation, as an example, to control the amount of water that's used, on the one hand, and recharge programs on the other side to increase the amount of water going into the basin, and to do that so that by a date. And, if my memory serves me correctly, 2020, to have a long-term balance between recharge and withdrawal and basically to use whatever tools you could come up with to achieve that.

Storey: So does this mean no new wells?

Snow: No. But there certainly was a specific process to go through for new wells and how you would get new wells. Cities, in particular, it was easier for them to drill new wells than certainly it was for agriculture.

Storey: What about a private homeowner?

Snow: There was an exempt process. I don't remember offhand. Maybe twenty-five gallons per minute or less was exempt. I mean, the kind of small well that you'd have for a homeowner was exempt from the process. You had to comply with well-drilling specifications, but you were not prohibited in any way from punching a hole for your own domestic purpose.

Storey: So if I'm understanding this, the A-M-A was aimed largely an irrigation and large municipalities?

Snow: Right.

Storey: Did it also require metering for the individual house wells and so on?

Snow: You know, I don't remember if those small wells had to be metered or not. I think that they did, but I just don't remember about that.

Storey: You were also working with other things like groundwater conservation or water conservation. Tell me a little about that activity.

Water Conservation Efforts

Snow: To develop a conservation program the Groundwater Management Act required that you develop conservation targets for the urban areas and practices for others, and to do that we formed stakeholder committees. We had representatives of the different cities and water suppliers we'd be affecting to kind of work through what were the different techniques that are available. How effective are these techniques, what should we expect to be able to achieve with them, so that we are able to lay out a target that was based on assumption of certain measures that we at least had some consensus about as being effective.

In other words, a lot of focus on large irrigators like golf courses, parks, cemeteries, that type of thing. A lot of emphasis on zero escape, which is a pretty big deal in the desert areas of just using lower water use plants. We had a process where they all got manifest in a kind of a target per capita rate that we expected folks to achieve. But it was a very collaborative process to try to get there.

Storey: Was the A-M-A providing tools for water conservation? How was that working?

Snow: I don't know what's happened since. At that time, we didn't have grants that we were offering. It was much more a process to set up a target and then we gave that target to the different entities and they were to achieve it. They often had access to different monies from different sources, but I don't remember at that time us providing any money.

Storey: Were you talking about injecting C-A-P water at that time?

Snow: There was some discussion of that, of recharging C-A-P water, but at that time there was a lot more discussion of recharging wastewater affluent and cleaning it up to a level sufficient and then recharging that in some of the key areas in the basin. Now, subsequently, after I left there was a lot more discussion by the city and the county or mostly the city on C-A-P recharge. I don't know if you followed Tucson's hysterics over C-A-P water, but they've had quite a challenge technically and politically on dealing with their C-A-P supply. They first treated it and put it into the system. It caused certain metals to come out of suspension in the pipe. That resulted in a car dealer getting

involved and passing an initiative forbidding them from using C-A-P water directly and abandoning a brand new treatment plant. So they've had their hands full on how to integrate C-A-P into their system.

Storey: Which headhunter called you?

Snow: I think it was the firm of Hedrick and Struggles [phonetic]. I remember that name.

Storey: Hedrick and Struggles.

Snow: It's an apt name, I think.

Storey: Sounds like an interesting job. What intrigued you about it?

San Diego Water Issues

Snow: Well, I guess, two very different things. One was just a chance to experience San Diego and Southern California. Young family and thought that could be interesting to do for a while. The professional side of it was that it was a district in some difficulty, meaning that they were way behind. They already knew that the demands for water supply had far outstripped their capability, and they had had a lot of difficulty with regulatory agencies and trying to move

forward. And they were looking for somebody who could work collaboratively and try to get things done. That's what I enjoy doing, so it was a professional challenge in kind of an interesting place. So that's why I made the move to Southern California.

Storey: You earlier mentioned that there's Northern California water involved, there was Colorado River water involved. Was that something that was direct to the San Diego County Water Authority, or was that through M-W-D [Metropolitan Water District]?

Snow: That was through M-W-D, their largest consumer of water.

Storey: So how did San Diego relate to M-W-D?

San Diego's Relationship with MWD

Snow: In a very rocky relationship way, which has subsequently manifest itself in other issues like transfers on the Colorado River. The tension that was always there, and it was there the first day I took the job, was that San Diego was, and is, Metropolitan's largest revenue source and largest consumer of water, has been for many years. However, in one of the arcane provisions in their bylaws, priority to water, particularly

during shortage conditions, is assigned based on the total assessed value of taxes paid into Metropolitan.

In that calculation we were quite junior, even though we were currently paying more than anyone. So there was this juxtaposition of us being the largest consumer of water and at the same time under these shortage provisions we've got a very small allocation of water. That has always been the tension between San Diego and Metropolitan. Los Angeles, of course, had the most. They had the most rights under that system, even though at times they took very little water from Metropolitan.

So that, as I say, created the tension. Its what created San Diego's desire to participate out there in the broader water arena trying to protect its interest out of concern that Metropolitan Water District would not, when push come to shove. So we got involved in the statewide issues like Bay-Delta and, of course, subsequently in recent years San Diego got involved in transfer arrangements of Colorado River water directly to them out of that same concern. So it's a necessary relationship, but a very difficult one at times.

Storey: Now, there was also an aqueduct Reclamation built for San Diego, I believe. Did you have any relationship to that?

San Diego Project

Snow: Is this the first one that was built in the forties?

Storey: Yes. It was built during World War II. It was beside the shipyards, basically.

Snow: Right. That's how the San Diego County Water Authority got created.⁶ In 1944 there was a special executive order of Roosevelt, and it was concerned that San Diego and the war effort was going to be short water and they needed to tie into Metropolitan Water District. So as I understand it, the first barrel, the first pipeline

6. The San Diego Project consists of the First and Second San Diego Aqueducts. These two aqueducts, with two branch lines, make up the backbone of the San Diego County Water Authority system. The First Aqueduct consists of Pipelines 1 and 2, which extend from the Metropolitan Water District's Colorado River Aqueduct near San Jacinto, California, to the city of San Diego's San Vicente Reservoir, approximately 15 miles northeast of the city. Pipeline 1, designed by the Bureau of Reclamation, was constructed by the Navy Department to relieve the water supply emergency in San Diego County. Pipeline 2, roughly paralleling the first, was designed and constructed by the Bureau of Reclamation. For more information, see Robert Autobe, "San Diego Project," Denver: Bureau of Reclamation History Program, www.usbr.gov/projects/pdf.php?id=185.

connection, was built by the federal government. I hadn't remembered that it was the bureau that did that. But by the time it was completed, the war was over. It was initiated and the war was over. But that's how it all got started. Now it was determined San Diego should tie into the Metropolitan Water District rather than develop its own water supply. That was one of the options at the time, because the pressure of the war, it was decided it was a lot easier to tie into Metropolitan Water District's supply than to build a pipeline over the mountains to the All-American Canal and tap into a water supply that San Diego had on the All-American Canal.⁷ That's how we got down this path of being part of Metropolitan Water District.

Storey: So you didn't ever control that line or anything?

7. The All-American Canal System, located in the southeastern corner of California, consists of the Imperial Diversion Dam and Desilting Works, the 80-mile All-American Canal, the 123-mile Coachella Canal, and appurtenant structures. The system has the capacity, through water diversions from the Colorado River at Imperial Dam, to irrigate about 530,000 acres of fertile land in the Imperial Valley and about 78,530 acres in the Coachella Valley. For more information, see Eric A. Stene, "All-American Canal: Boulder Canyon Project," Denver: Bureau of Reclamation History Program, 2009, www.usbr.gov/projects/pdf.php?id=80.

-
- Snow: That pipeline?
- Storey: Yes.
- Snow: Oh, yes. That was at some point turned over to the San Diego County Water Authority.
- Storey: Oh, it was?
- Snow: Yes.
- Storey: So you had that straw in the river.
- Snow: Oh, no. The one over the mountain? No. That one was never built.
- Storey: No. But the other one. The one that was begun in '44.
- Snow: Right. That went up and connected to Metropolitan's system and became our first pipeline.
- Storey: And that pipeline is now San Diego's, was San Diego's while you were there?
- Snow: Right. And it's the first of six pipelines that have been built. That was a forty-eight inch pipeline and others have been added up to a hundred and twelve inches since then.

Storey: What kind of issues come up when you're wholesaling water in Southern California with a supply that isn't as large as you would like it to be?

Wholesaling Water in Southern California

Snow: Shortage issues, contingency plans for shortage. Earthquake disruption of the supply system, since all of the pipelines run across major fault systems. How to pay for capital facilities. How to pay for conservation investment. So a lot of financial issues, some equity issues, and a lot of water supply reliability issues. Many of those later issues were motivated in two regards: physical, meaning the earthquake faults, for example; but also politically given the problem of Metropolitan Water District of having a priority under a shortage scenario much less than our actual percentage take of water on an annual basis. So both of those factor motivated looking at doing transfers on our own, developing additional storage in the county to deal with potential earthquake or emergency disruption of the system, and a very significant investment in conservation and wastewater reclamation.

Storey: What about conjunctive use kinds of issues?

Snow: There's some of that in San Diego, but relatively limited groundwater basins in San Diego County. A couple of areas where they're able to do it, but it's relatively confined. Some of the groundwater basins are brackish water, old sea water that's still in the groundwater basin, and just not a major avenue. Some localized development, localized benefit. But from a regional strategy, groundwater basin is really not quite big enough or robust enough to be a major player in the overall strategy.

Storey: What kind of planning did you have to do if you had a three-quarter of a billion dollar investment program that needed to be initiated?

Water Authority Projects

Snow: I think we hired every consultant in California to do that because we were behind the curve. So we did a very large-scale programmatic environmental document to cover the whole program and then site specific to construct a basically four hundred million dollar pipeline the full length of the county to add capacity, and then a lot of other little pieces to it, pump stations and interconnects. And then also a whole effort that was called the emergency storage program to identify storage strategies to increase our reserve during either severe

drought or earthquake-type emergencies or shortages. A lot of community planning. Constructing a pipeline the full length of the county, while highly supported by the community as a whole, a lot of major disruption. That was a hundred and twelve inch pipeline going through urban areas and took a lot of community interaction, a lot of night meetings, a lot of construction impact. So it was very, very significant and a very high-profile program.

Storey: I'm not quite sure how to phrase this next question. But I understand that basically you didn't really have enough water to service all your customers. So how can you build up surpluses in reservoirs for drought and for disruption situations?

Snow: The actual shortage that was of concern was a capacity shortage that we could not move sufficient water to keep parts of the county, so that's what the pipeline project was about, to regain capacity. With that capacity then we could meet those needs. It was not a problem. It was only then the exceptional situation, the drought settings or earthquake settings that we were concerned about simply being able to meet demand. So once we were under way to deal with the capacity problem, then we focused on,

I'll call it, the resource problem, and that's what led us to the storage issue. So with the capacity we were able then to store water and then move water around. Part of the solution was actually to tie together some of the existing storage in the system so that rather than a reservoir providing a two-year supply for the small segment of the service area, it could provide a six-month supply here and then be shared out on a broader basis. So a lot of it was re-engineering the system. So our initial problem was a capacity problem, not an actual availability problem.

Storey: Now, you went there in '87 and you left in '95, was it?

Snow: Yes. I think it was January of '88 I went there and then left in February, March of '95.

Storey: Were you there as discussions were being done with the Imperial Valley about water conservation and water transfers?

Snow: No. While I was there, we had prepared—you know, I don't remember what we called them, but it was kind of Plan B strategies, meaning if Plan A was always that Metropolitan would meet our needs, as we had then. Plan B was what happens if Met doesn't. They allocate

water according to preferential rights. What happens to us? So there's a number of Plan B strategies about going out into the marketplace in the Central Valley, buying water, the thought of trying to petition to become a direct state contractor, not through Metropolitan, looking at transfers with Imperial Irrigation District.

So we had laid out an array of different contingent actions, depending on whether Met was a full partner. That probably was the way that we expressed it. So we had those kinds of discussions, but at that time I think we were mostly looking at Plan A, you know, Met has to meet our needs in some fashion. Obviously, some time after that they shifted to looking at Plan B and really feeling the need to develop an alternative water supply.

Storey: After '95.

Snow: Yes.

Storey: What kinds of problems would you have had if you had to go to Plan B? What kinds of things were you planning for? Or did you get that far?

Snow: Well, to some extent. I mean, I think that all the Plan B alternatives tend to cost more money. To go out and buy water in the San Joaquin

Valley and move it, wheel it through the system, would be an example of that. So they all probably tended to cost more, and all of them raised policy and political issues, as has the I-I-D [Imperial Irrigation District] transfer. It ended up being in the legislature. So there were none without controversy, with the exception of the stuff we could do within the service area to invest in more wastewater reclamation, to look at what point is desalination cost-effective, those kinds of things were within our control. Anything else outside, chances are it carried a higher price tag and also carried political issues that had to be dealt with.

Storey: Were you looking actively at desalination when you were there?

Snow: Yes. We had a pretty detailed study we were trying to do cooperatively with the power company, San Diego Gas and Electric, and some co-located facilities would desal power generation. They had two plants that we looked at. A number of environmental issues came up in those efforts, and the price tag never really came down to be reasonable as compared to, for example, wastewater reuse being more cost-effective. And until that's exhausted and until you've done all you can in transfers, it's just not quite cost-effective to do that.

Now, of course, I had no idea this would happen, of course, back then, but the cost of power now and the power problems being experienced in the state and specifically in San Diego, all of our analysis would have been at power costs probably half of what they've actually been this summer in San Diego. So it would have been prohibitively expensive to do desal at those power costs.

Storey: And power is used in desalination in what way?

Snow: Well, depending on the technique, R-O is probably the easiest way to do it, and so you have to have power to pressurize the water to push it through the membrane.

Storey: Reverse osmosis.

Snow: Yes. Or if you use flash distillation you've got to heat something up. So you get kind of the flash of steam coming off and then you condense the vapor. So you're either heating water or pressurizing it, and those all take power.

Storey: And I suppose you have to pump it to wherever you're going to treat it.

- Snow: Right. And desal always occurs at the lowest point in your service area, at sea level, basically. I mean, the places that we were looking at were that way, because the powerplants were located on the coast or on the bay and that co-location was the easiest thing to do.
- Storey: Was the San Diego Water Authority providing ag uses?
- Snow: Yes. We had quite a bit of ag use. I don't remember offhand the percentage, but northern San Diego County is an area with the largest production of avocados, for example. The flower growers around Carlsbad grow types of flowers that are grown nowhere else in California. So it's a lot of orchard and flower production, very high value agricultural crops. We had farmers that we were providing water to for six hundred dollars an acre foot, so at very high cost and a lot of, well, at one time, unusual, kiwis and different types of exotic fruit and that sort of thing.
- Storey: So what percentage, do you recall, of your water would be going to ag as opposed to urban as opposed to environmental group interests?
- Snow: In terms of doing that in reverse, none of our water, per se, went to an environmental purpose.

Since all of our water was imported, it wasn't like we developed water and then released it for fishery. I've kind of gone blank on this one. If I had to guess, I'd say maybe 30 percent of our water was for ag purposes. But I just don't really recall. That's probably somewhere in the ballpark.

Storey: If you were not using water for environmental uses, explain to me why the environmentalists were involved in your three-way process of developing consensus?

Snow: That has to do with the origin of our water. Our water came from the delta. Once we got it in San Diego County, it wasn't a question of you have to release this for salmon on the San Luis Rey River. However, our ability to get the water in the pipeline was very much at question, depending on the endangered species issues and environmental regulations in the delta. So in order to solve the problems associated with diverting the water to begin with, we needed to address the environmental issues in the delta.

Storey: So was a lot of your time spent on dealing with groups up in this area then? Are groups interested in this area?

Snow: Yes. I think it probably evolved probably from '91 on to where I was spending—I was certainly a couple of days, maybe two to five days a month, exclusively up in Northern California at different meetings on these kinds of issues. That was important to my board as well as it was to me. Everybody knew that was a major issue. If we can't solve those problems, than there's no way we're going to have a reliable water supply.

END SIDE 2, TAPE 1. SEPTEMBER 2, 2000.
BEGIN SIDE 1, TAPE 2. SEPTEMBER 2, 2000.

Storey: This is Brit Allan Storey with Lester A. Snow on September 20, 2000. Once again, I'm not quite sure how to phrase this question. But the water authority in San Diego is a chartered entity, I presume, state chartered, county chartered. What kind of political influence does a group like that have?

Water Authority's Political Clout

Snow: There's an ebb and flow to the political clout of an entity like that. It depends on who's on the board and how active they are politically. The water authority and Metropolitan Water District are unique for California in the size of the boards, with Metropolitan having the largest

board of directors of any water agency in the state, and the San Diego County Water Authority the second largest with thirty-some members representing the twenty or so retail agencies. It really depends who's on the board and who's active as to how much statewide political clout an organization like that has.

Now, when I was there, there were a number of key, very active players on the board that, in fact, did have a lot of influence statewide, some that are still on the board, and they were active with local officials like the current Senator Steve Peace from San Diego, and also, as an example, one of the chairman while I was there had been chief of staff for Mayor Pete Wilson, who was the governor then.

So, like I say, it really depends. A very personal kind of thing. It depends on who's on the board and who's active. While I was there, there was a number of people quite active in both the Democratic and Republican politics and well known in the state. They were quite helpful and quite influential at different times in the process.

Storey: With twenty-eight retail agencies, what kinds of issues come up among the agencies, or did you

just have enough water that there weren't any issues?

Issues with Retail Agencies

Snow: No. There were always issues, even when we had enough water. Twenty-eight people in a room will find a way to argue with each other, and certainly in water there's no exception to that. I don't think this oversimplifies, but it's all equity issues and perceptions of equity and who's getting the best deal, how much are we paying compared to what you're paying, and power structure. Any time you have a body where one of the entities is the city of San Diego and another is the Ramona Water District way up in the hills somewhere, relatively small community, you have equity issues at play.

Those types of issues you constantly have to pay attention to to make sure that something that shouldn't be a big dispute stays off to the side and doesn't turn into a big dispute, and particularly when you're adding a lot of costs to the program. In a major capital improvement program people are very attuned to equity and who's making the decisions and who's getting the benefits for these projects and who's paying for them. So you just had to manage that all of the time.

Storey: I would think you would have problems if the guy from Ramona has the same vote the guy from San Diego has.

Snow: You would. And they don't have the same vote. That was interesting. For many years and perhaps even still now on many issues business was conducted by a nominal vote. First of all, City of San Diego has ten members and Ramona would have one. But even the voting structure based on other calculations, total monies contributed, basically, and so there's a weighted vote that takes place. Now, most of the business is conducted on a nominal vote basis. Whoever's in the room you raise your hand, the motion passes. Many key issues, though, are conducted on the weighted vote basis, where you actually calculate how much weight this hand has when it's held up. So it's kind of done both ways.

Most of the business that I was engaged in was done on a unanimous basis. It was very rare that there was a dissenting vote. There may be an abstention every once in a while, but it was rare for most of the time that I was there that there'd be anything other than a unanimous vote to take action on the programs.

- Storey: That must mean that the general manger did a lot of background work before the vote took place.
- Snow: Some. But it also was a way that the board conducted itself. I mean, certainly the staff, the general manager, had to do a lot of that. You never wanted to go into a board meeting wondering how this issue is going to go. That's a recipe for disaster. So, in fact, we did have to do a lot of that and identify who might not like this and meet with them ahead of time. But also the board itself felt it was important to do business on important issues like improving a forty-five million dollar capital project, that that be done on a unanimous basis, and that the pressure was on. If you're going to vote no, you needed to really have a good reason. And it made people, I think, really think through these issues and try to keep the family together, as it were.
- Storey: That's an interesting way of doing business, though, especially when water's involved, such a contentious issue in the American West. Interesting. Did you have any situations within the water authority where you had listed species or that's all to do with Bay Delta?

Snow: We had terrestrial issues that were important to our construction program. We wanted to build a pipe across the Naval Air Station, and where we needed to go was filled with vernal pools which were filled with endangered plant species. So we dealt with the Endangered Species Act but from a very different standpoint, a much more classic terrestrial standpoint.

Storey: Let's talk about your transition over to CALFED then. How did that happen?

Moving to CALFED

Snow: As the problems in the delta became more clear and as there had been these discussions about how to fix the problem, we got the Department of Interior involved more on that, as well as the Governor's office. Assistant Secretary of Interior Betsy Rieke ended up being kind of the lead person. That process actually entered into formal discussions between the state and feds. The federal government formed what they euphemistically called Club Fed, and the fed in that case actually stood for Federal Ecosystem Directorate, and the governor formed what he called his Water Policy Council. On the federal side is the feds trying to pull together all the federal agencies that had jurisdiction in the

delta. On the state side, likewise, they were trying to pull together the state agencies.

The two groups met and as part of that effort combined with the three-way process—ag, urban, and environmental interests—came up with an accord which averted E-P-A imposing water quality standards in the delta. The pressure for several months was coming up with a plan that worked as well or better in achieving the results that E-P-A wanted to see but with less impact to the water users, and that's what that manifest in the Bay-Delta Accord in December of '94.

There were quite a number of us involved in that, and everyone knew that that was a temporary fix and we needed to get on with a bigger effort. So people wanted to take advantage of the state and federal government coming together. Keeping in mind at that point it was a Republican state administration, a Democratic federal administration wanted to cement that relationship and get on with a plan. So that was CALFED. They needed a planning effort to do that.

The framework agreement that led to the accord had in there a commitment to develop a long-term solution. So once the accord was done, they really wanted to kick off the long-

term planning effort, indicated they wanted somebody to take over that effort, and move forward as quickly as possible. I threw my name into it at that point, knowing all the parties at play, and got hired probably in January, started in March of '95, to begin the process to develop NEPA/CEQA [California Environmental Quality Act] documents and a strategy to put all this in place and development a very extensive public and stakeholder involvement process, probably the most extensive that's been done. We just had so many committees and public meetings, very arduous. Its football analogy would be just a grind-it-out ground game, identifying issues, meeting with effective parties and trying to develop solutions and package it into an overall master plan for the delta dealing with water supply and levees, water quality, fisheries issues, endangered species, and put it into a master plan.

Storey: And everybody loves it, right?

Developing CALFED Strategies

Snow: Well, no, not exactly. To kind of fast-forward to where we are today, we actually have a Record of Decision. Governor's Office seems fairly happy with it. I think Interior was fairly

comfortable with compromises in direction. Stakeholders are still all grousing. The environmentalists would say that the water users got way too much. Water users are upset that they got nothing out of the deal. So I think right now it's still too early to tell what the outcome will be.

I think everybody's in the reality check mode right now. There is a Record of Decision out. How is it going to affect me? What do these three words mean over here? I didn't see those before. What does this mean? And everybody is nervous. Every is grousing about it. We have questions on the federal side about funding. Our funding bill is with Congressman Doolittle right now. Remains to be seen how much money is going to be in our budget next year to begin implementing CALFED. The state has considerable amount of money to begin implementation. I think everybody is confident that as a result of this improvements are going to be made. There's still question about timing and nature and who's making decisions on implementation. Those are still all in play right now.

Storey: How does CALFED relate to the C-V-P-I-A [Central Valley Project Improvement Act]?

CALFED and Central Valley Project Improvement Act

Snow: That's been kind of a difficult question from the beginning. Obviously, C-V-P-I-A happened first.⁸ That was passed in 1992, although we still don't have a record of decision on our environmental documentation for C-V-P-I-A. So I think the way it has worked out is that C-V-P-I-A and the required actions in C-V-P-I-A are a subset of the broader CALFED strategy. As an example, C-V-P-I-A required the dedication of C-V-P [Central Valley Project] water for fish recovery, eight hundred thousand acre feet. CALFED has come along and has assumed that eight hundred thousand acre feet, and actually added to it an environmental water account, additional water that will be acquired in the marketplace to be used for fisheries. So the amount of water under the CALFED umbrella is

8. Public Law 102-575, the Reclamation Projects Authorization and Adjustment Act of 1992, became law October 30, 1992. The act contained numerous titles, each of which is given a separate name. Title 34 of the act is the Central Valley Project Improvement Act or CVPIA. The act's purpose is: to protect, restore, and enhance fish and wildlife habitats in the Central Valley and Trinity River basin; to address project impacts on fish and wildlife; to improve project operational flexibility; to increase expanded use of voluntary water transfers and improve water conservation; to contribute to California's efforts to protect Sacramento/San Joaquin Delta; to achieve reasonable balances among competing demands for use of Central Valley Project Water.

probably 1.2 million acre feet or something along those lines, eight hundred thousand of it is C-V-P-I-A.

C-V-P-I-A, for example, requires our water users to develop conservation plans and to implement certain measures. CALFED comes along and expects all agriculture, whether it's federal or state, to develop water management plans. So I think, by and large, C-V-P-I-A is a specific regulatory mandated subset of CALFED that tends to be more a voluntary, cooperative, reimbursed type of activity.

Storey: And who's paying for all of this?

Snow: It kind of varies by the type of activity, and to a large extent that's not resolved and is dependent on looking at a specific project and determining who the beneficiaries are and how they should pay. But there's really no question that there's an expectation of large public investment in the CALFED solution. Where there's not much disagreement about that or maybe perhaps no disagreement is there is significant investment in eco-system restoration from the public, significant investment in conservation and water management types of things like going to drip system for farmers or ultra low-flow toilet programs for the cities or investment in

wastewater reuse. There's expectation of significant public investment in all of those areas.

Where it's less clear is where the plan proposes to develop storage, either surface water or groundwater. There may be situations where public investment is called for. However, the environmental community and the federal position is clearly that in the case of storage, we are developing water supply. Those that benefit from the water supply need to pay for the investment. So still some contentious issues but, nonetheless, there is an expectation of significant public money.

Storey: Let's see now, you've been regional director about a year?

Snow: Eleven months.

Storey: About a year.

Snow: Eleven months, yes.

Storey: What do you see as the major kinds of issues Reclamation has to deal with on the Central Valley Project besides C-V-P-I-A?

M-P Regional Response to CVPIA

Snow: I'm not sure there is a besides C-V-P-I-A. I'll try to answer that, but I think that Mid-Pacific issues dealing with the Central Valley Project almost all of them come directly from or are related to the changes in C-V-P-I-A. As an example, one of the bigger programs we have under way right now is long-term contract renewal with our contractors on C-V-P. Contracts are expiring. Some are on interim renewal contracts. Others have some fixed contracts that will go on for a few years. But it's the time we're to renew contracts.

C-V-P-I-A changed the way we renew contracts. It has different parameters in them than any other contracts anywhere else in the bureau. That has caused very difficult discussions and negotiations with our contractors. C-V-P-I-A has a provision that the secretary may renew contracts. Not required to. Here to date all the other authorities are that the secretary must renew or shall renew contracts. That's a change of one word and it's a major conflict and issue with our contractors. C-V-P-I-A has changed the probability of delivering full contract amounts significantly for almost all of our contractors, and that has affected relationship with contractors. So many of the things that we deal with have their origins in C-V-P-I-A.

I think our biggest issue in maybe trying to link all these things together is to devise a focused plan to improve overall water supply reliability within C-V-P. As I said, reliability of the system has been decreased by the congressional action. It's been decreased by listing of endangered species. We need to stabilize that system so that the contractors have an amount that they feel comfortable that they're going to get on a regular basis and it's not going to continue to slide down. And I think we need to get on with implementing partnerships and programs to try to develop a more reliable water supply. I'm not sure I answered your question.

Storey: That's okay. What about major issues for us on the Newlands Project right now?

Newlands Project

Snow: That's a tough one with the endangered species and the tribal trust issues. We've just recently settled a dispute over money with them. It's kind of the first time we've had a settlement within the Newlands Project⁹ to help resolve

9. Authorized by the Secretary of the Interior on March 14, 1903, The Newlands Project was one of the first Reclamation projects. It provides irrigation water from the Truckee and Carson Rivers for about
(continued...)

some of those issues. In the long term, I think what we need is to figure out what is the sustainable level of agricultural production, given those other competing issues, E-S-A and tribal trust issues, and try to move as effectively as we can on that. The problem there is, of course, everything is a conflict. The irrigation district is reticent to try to take the long view and decide what needs to happen and move there and much more inclined to fight each and every action, which has not worked out well for them in the past.

So I think what needs to happen is just a very dispassionate, objective look at what is the sustainable agricultural community there, given these other competing needs, and how do we move to there in as stable way as possible.

Storey: What about the Klamath Project?

Klamath Project

9. (...continued)

57,000 acres of cropland in the Lahontan Valley near Fallon and bench lands near Fernley in western Nevada. In addition, water from about 6,000 acres of project land has been transferred to the Lahontan Valley Wetlands near Fallon. For more information, see Wm. Joe Simonds, "The Newlands Project," Denver: Bureau of Reclamation History Program, 1996, www.usbr.gov/projects/pdf.php?id=142.

Snow: Klamath Project is actually a project that's going to get a lot more of our attention.¹⁰ That's one of the reasons that I'd like to get some of these C-V-P-I-A issues or C-V-P issues behind us, the contract renewal, and turn much more attention to aiding our area office in dealing with the issues up there. It's a very untenable situation the way that it is where endangered species in the lake, endangered species in the river downstream of the lake, kind of compete against each other affecting the diversions out of the lake for both agriculture as well as the refuges. It's a merely lose-lose situation. It seems to be a surprise every year.

We need to take a look at it and develop a comprehensive water management strategy, probably developing some additional storage to buffer these competing issues we have every September. Groundwater storage or potentially raising one of the dams in the area. Somehow we have to create more buffer in the system so that we all of a sudden on a Friday don't have to notify people we've got to start curtailing their

10. In 1906 Reclamation began construction of the Klamath Project. The Klamath Project covers territory in Klamath County in southern Oregon, and Siskiyou and Modoc counties in northern California. For more information, see Eric A. Stene, "Klamath Project," Denver: Bureau of Reclamation History Program, 1994, www.usbr.gov/projects/pdf.php?id=129.

water supply because the lake is dropping too fast. We have to do that in partnership with the users in the area before they lose complete confidence in our ability to manage the system.

Reclamation is in a very difficult situation in that we have NMFS [National Marine Fisheries Service] on side wanting flows in the river. We have the Fish and Wildlife Service on the other side wanting to maintain lake levels, and yet in a different position wanting water for their refuge to water up for the fall season. We end up being the bad guy in all those situations, and I don't think that's fair. We are the resource manager up there, and what I want to have happen is us develop a water resource plan that meets as many of these needs as possible and develop the facilities to do so.

Storey: We have some other projects besides Central Valley like Orland and what's the one with Monteseito [phonetic] in it?

Snow: Don't know.

Storey: Or Monticello [Dam],¹¹ I mean. I want to say it's Sonoma, but I don't think that's right.

Snow: I know what you mean.

Storey: It doesn't matter that much. Then we have a few little projects down, I think, south of the Tehachapi also. Are there any particular issues on these things coming up?

Matilija Dam

Snow: One thing that's of interest is Matilija Dam, which is in Ventura County. It's actually a dam owned by the county. We have done some initial work for them on decommissioning the dam and tearing it down, which would be important for steelhead. The county very much wants the bureau to proceed and take charge of tearing the dam down, basically. The local congressman, who is more familiar with the Corps wants the Corps to do it. The county

11. The primary feature of the Solano Project, Monticello Dam is located on Putah Creek where the stream crosses the eastern boundary of Napa County. It regulates flows along the lower reaches of Putah Creek and stores surplus water. The dam is a concrete, medium-thick arch structure with a height of 304 feet above the foundation and a crest length of 1,023 feet. For more information, see Zachary Redmond, "Solano Project," Denver: Bureau of Reclamation History Program, 2000, www.usbr.gov/projects/pdf.php?id=195.

wants us to do it because they liked the working relationship that the bureau brings to projects like that.

The reason I mention that is I think that is, to some extent, a glimpse into the bureau's future, from my perspective, and that is that some of our strengths are we have diverse expertise, we have engineers, we have economists. But something that's truly unique, from my perspective, for federal agencies, we have local relationships. We're out in these regions. We know people. Sometimes have very long relationships with local government or local entities. As we get into some of these complicated water resource issues, people want to have that local connection.

Typically the Corps doesn't have that or other federal agencies often don't have that. And I think that's an area we need to develop and become the kind of premier water resource management agency to help solve some of these problems, whether it's tearing down a dam, or doing a conjunctive management program, or working out a strategy between some local farmers and fisheries issues. Whatever it is, I think we have a built-in expertise and capability to deal with those kinds of issues. So we're trying to get out from under the C-V-P-I-A

requirements in this region and get on to doing water resource management planning with our local partners to try to start improving the situation.

Storey: Is there anything else you'd like to talk about? Anything I've missed that I should have asked?

Snow: Not that pops to mind.

Storey: I guess I do have one question. Every bureaucracy has its own characteristics. You left San Diego to go to CALFED and then CALFED to come here. What have you noticed in the bureaucratic changes as you've moved from organization to organization? Is there anything that sticks out in your mind?

Culture within Different Bureaucracies

Snow: I guess there is one thing on the federal side. This is the first time I've worked purely for a federal agency. Obviously, at CALFED I worked half federal and half state, and what I find with the bureau, and people told me this before I came here, the bureau is very much like a family. There's many people in the bureau that have been in the system for a long time and they know people not only in this region but the other regions and they're very much, despite the

number of people, very much a family atmosphere, which I find to be true. I also find very capable and dedicated people, which isn't always the broad brush that a congressman paints of federal bureaucrats, uncaring, nine-to-fivers, and that's not the case at all.

The one thing, I guess the negative thing that I've seen, is that being a region reporting to the bureau, which is within Department of Interior, which is one of many federal organizations, you're never quite sure who in Washington might step in at the last minute and change a direction that you think you need to go in, whether it's somebody from O-M-B [Office of Management and Budget] or the Council on Environmental Quality or somebody from some other part of Interior. It's the, I call it, the federal decision-making process that at times is less than clear, much less than predictable, and sometimes extremely counterproductive to good resource management. And it's more so that way than I anticipated coming into this. I think that's probably an expression of frustration—

END SIDE 1, TAPE 2. SEPTEMBER 2, 2000.

BEGIN SIDE 2, TAPE 2. SEPTEMBER 2, 2000.

Snow: I don't know how you fix that, but to do good water resource management in the form of

partnerships, where you really want partners from state government or local government, you have to minimize the twist and turns that happen subsequently in a distance place without familiarity to the issues. If we cannot figure out how to narrow the hallway policymakers and their involvement in these things, then I'm not sure we can be an effective partner.

Storey: Well, I appreciate your time, and I'd like to ask you whether the information on these tapes and the resulting transcripts can be used by researchers.

Snow: Sure.

Storey: Good. Thank you very much.

END SIDE 2, TAPE 1. SEPTEMBER 2, 2000.
END OF INTERVIEW.